DOCUMENT RESUME

ED 262 739 HE 018 826

TITLE	Validation of Student and Parent Reported Data on the Basic Grant Application Form. Final Report. Volume VI, Executive Summary.
INSTITUTION	Applied Management Sciences, Inc., Silver Spring, Md.
SPONS AGENCY	Bureau of Student Financial Assistance (DHEW/OE), Washington, D.C.
PUB DATE	23 Nov 76
CONTRACT	300-75-0227
NOTE	57p.; For related documents, see HE 018 812-825. Volumes IV and V were unavailable from the Office of Student Financial Assistance.
PUB TYPE	Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Accountability; *College Students; Comparative Analysis; *Disclosure; *Eligibility; *Financial Aid Applicants; Grants; Higher Education; Income; Student Characteristics; *Student Financial Aid; *Student Records; Taxes
IDENTIFIERS	*Basic Educational Opportunity Grants; Fraud; Internal Revenue Service

ABSTRACT

Objectives and findings of the Basic Grant Validation Study, which investigated the validity of information provided by applicants to the Basic Educational Opportunity Grant (BEOG) program, are described. Implications of the findings for financial aid application validation are also discussed. Seven separate studies were conducted in order to: determine the degree of actual and potential program abuse; identify the characteristics of applicants who misreport personal and/or family financial circumstances; and establish procedures to regularly screen and correct erroneous applications. Validation of individual applications was undertaken, based on cases referred by college financial aid officers as well as randomly selected applications identified by a set of pre-established criteria. Also examined were applications from individuals whose financial circumstances had changed significantly during the application year and whose BEOG eligibility was therefore based on estimates of their income. The overall accuracy of income estimates was investigated by comparing income tax records with data reported on BEOG supplemental applications forms. To determine the overall scope and nature of misreporting, BEOG applications were matched with income tax forms submitted to the Internal Revenue Service. (SW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 124 [illegible]

4-FR

VALIDATION OF STUDENT AND PARENT REPORTED DATA ON THE BASIC GRANT APPLICATION FORM

Final Report

Volume VI

Executive Summary

November 23, 1976

Prepared for:

Division of Basic and State Student Grants
Office of Education
Department of Health, Education, and Welfare

Contract No. 300-75-0277

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

AVAILABLE COPY AVAILABLE TO ERIC

TABLE OF CONTENTS

Chapter		Page
1	INTRODUCTION	1
2	PROJECT OVERVIEW	3
	Reasons for Misreporting Taxable Incomes. . . .	7
	A Comparison of the Basic Grant Validation Study with Previous Research.	8
	Validating Low Income Applicants - The Issue of the Non-Match Study Group.	12
	Other Types of Basic Grant Misreporting - The Individual Validation Studies	13
	Supplemental Basic Grant Applications - The Accuracy of Income Estimates.	17
	Major Conclusions and Recommendations	18
3	PROJECT METHODOLOGIES AND SELECTED FINDINGS . . .	21
	I. Internal Revenue Service Sample Study . . .	22
	II. Individual Validation Studies	29
	III. Estimated Income Studies.	40

LIST OF TABLES

Table	Title	Page
1	Estimated Accuracy of Adjusted Gross Income Reported to the Basic Grant Program by Eligibility Status	5
2	Estimated Accuracy of Adjusted Gross Income Reported to the Basic Grant Program by Dependency Status	6
3	Estimated Effect of AGI Substitution on Eligibility Indices.	6
4	Comparability of the Accuracy of Reporting Adjusted Gross Income to BEOG and CSS.	9
5	Comparability of Reported Adjusted Gross Income by Basic Grant Applicants by Income Level.	11
6	Mode of Case Resolution in the Individual Validation Studies	15
7	Student Eligibility Report Errors Uncovered in the Pre-established Criteria Study	16
8	Average Number of Transactions Required to Resolve Cases in the Individual Validation Studies . . .	16
9	Estimated Effect on Supplemental Applicants' Eligibility Indices of Substituting Known Taxable Income for Estimated Income.	18

1

INTRODUCTION

The Basic Educational Opportunity Grant (BEOG) program was established to provide every eligible applicant with the elemental resources needed to attend the postsecondary institution of his/her choice. Authorized by the Education Amendments of 1972, the Basic Grant Program is unique among federally based financial aid programs in that assistance to students attending postsecondary schools is viewed as a right and financial assistance received from BEOG imposes no obligation for reimbursement. Furthermore, the amount of the grant is not a function of other financial aid for which the student may be eligible. Basic Grant monies are allocated solely on the basis of available personal (or family) income or assets as well as the costs of the institution the student chooses to attend.

The Basic Grant Program has been well received by students and the financial aid community. More than 2 million applications were processed during the 1975-76 academic year. However, the continued success of the Basic Grant Program requires that the relatively limited resources appropriated for financial assistance be disbursed in accordance with accurate application information. Currently application processing incorporates edits which ensure that BEOG applications do not contain suspect or grossly inconsistent information. These edits, however, were not intended to screen applications for the complete validity of the information provided. It is not always possible to detect misreporting and deliberate falsification of personal and/or family financial circumstances.

To ensure the integrity of the Basic Grant Program, the Division of Basic and State Student Grants (U.S. Office of Education) awarded a contract to establish a program by which Basic Grant applications could selectively be validated. The objectives of this program were threefold:

- to determine the degree of actual and potential program abuse;
- to identify the characteristics of applicants who misreport personal and/or family financial circumstances;
- to establish procedures to regularly screen and correct erroneous applications.

The Basic Grant Validation Study, as this project was entitled, consisted of three basic components. The first of these entailed the actual validation of individual applications. Applications selected for this phase of the study were obtained from two sources. The first was from financial aid officers at participating BEOG institutions. Applications referred to the Office of Education were those that were known to be discrepant with other sources of student information available to financial aid officers but could not be resolved at the institutional level. The second source came from a sample of 1400 cases selected randomly from applications identified by a set of criteria which a priori identified applications with a high probability of containing errors. Validation efforts undertaken in this component of the overall study were divided into the Institution Referral Study and the Pre-established Criteria Study depending on the source from which applications were obtained. In both studies individuals were requested to correct applications found to be in error.

The second component of the Basic Grant Validation Study entailed an examination of applications from individuals whose financial circumstances had changed significantly during the application year and whose Basic Grant eligibility was therefore based upon estimates of their 1974 income. Three studies were undertaken in the Estimated Income phase of the Validation Study.

The first of these studies was a comparison of 1974 income tax records with data reported on Basic Grant Supplemental application forms for the 1974-75 application year. The objective of this comparison was to determine the overall accuracy of income estimates. The second study involved the random selection of 400 eligible applicants who were asked to supply documentation supporting the income estimate upon which their award was based. Documentation requested was the 1974 income tax return. This aspect of the Estimated Income component was entitled the Individual Follow-Up Study. The third investigation was the CRT Look-Up Study. In this investigation, a sample was selected of those estimators who applied for a Basic Grant in 1974-75 and in 1975-76.

The third and most important component of the Basic Grant Validation Study entailed a matching of Basic Grant applications with tax information maintained by the Internal Revenue Service (IRS) in order to determine the overall scope and nature of misreporting. Done with complete applicant anonymity, over 130,000 1975-76 applications were randomly selected, of which approximately 70,000 were actually matched with IRS data.[1/] Non-matches were subjected to a separate analysis to determine specific characteristics of this subsample.

The results of these studies are presented in a five volume final report. Volume I contains the results of the Individual Validation Studies and an evaluation of the effectiveness of the procedures used to conduct these studies; Volume II contains the results of the various Estimated Income Studies; Volume III presents the results of the IRS Sample Study; Volume IV is the procedures manual used to conduct application validations; Volume V contains program recommendations, and Volume VI presents an executive summary.

1/ There were two basic reasons why complete matching was not obtainable. First, many applicants had neglected to place their parent's (or their own) social security numbers in their Basic Grant applications. Secondly, and most importantly, many Basic Grant applicants were in low income brackets and simply did not file income tax returns.

The present document has been developed in two parts. The first of these presents a broad overview of the major findings of all three study components and the implications these studies have for financial aid application validation. The second part is designed to review the basic objectives and methodologies of each of the seven component studies and summarize their major findings.

2

PROJECT OVERVIEW

Based on the findings of the IRS Sample Study, it is estimated that 81.5 percent [1/] of all Basic Grant applicants report adjusted gross incomes within ± 200 dollars of the incomes reported to the Internal Revenue Service (IRS). Thirteen percent (15.0%, unadjusted) underreport incomes to the Basic Grant program, while 5.4 percent (6.2%, unadjusted) overreport. Accuracy rates vary, however, depending on whether applicants were actually eligible for Basic Grant awards and whether the applicants filed as a dependent or an independent student. Eligible applicants and independent students were less accurate than ineligible applicants and dependent students, respectively. Differences in the accuracy rates as a function of these two variables are presented in Tables 1 and 2 below:

Table 1

Estimated Accuracy of Adjusted Gross Income Reported to the Basic Grant Program by Eligibility Status

	Total Sample %	Eligibile Applicants %	Ineligible Applicants %
Underreport	13.0(15.0) [2/]	16.5(21.2)	8.4
Accurate within ± $200	81.5(78.8)	77.7(71.3)	86.7
Overreport	5.4(6.2)	5.8(7.5)	4.9
Total*	100.0	100.0	100.0

* rounded to nearest whole percent

[1/] This figure has been adjusted to account for the relatively low IRS-BEOG match rate among eligible applicants reporting incomes of under $4,000 to BEOG. The unadjusted proportion of accurate filers based solely on the matched study group is 78.8 percent.

[2/] Figures in parentheses represent unadjusted rates for eligibles.

Table 2

Estimated Accuracy of Adjusted Gross Income Reported to the Basic Grant Program by Dependency Status

	Total Sample %	Dependent Students %	Independent Students %
Underreport	13.0(15.0)	11.3(13.2)	24.4
Accurate within ± $200	81.5(78.8)	84.0(81.2)	65.4
Overreport	5.4(6.2)	4.7(5.5)	10.0
Total*	100.0	100.0	100.0

* rounded to nearest whole percent

Several analyses were undertaken to determine the consequences of misreporting information to the Basic Grant program in terms of changes in applicant eligibility indices if these indices were calculated using IRS reported incomes rather than Basic Grant reported incomes. Results of this procedure are presented in Table 3. These data indicate that, 68 percent of all applicants would have incurred no index change if IRS-reported incomes had been used to calculate Basic Grant eligibility rather than BEOG-reported information. Furthermore, 89 percent would have incurred changes of less than 200 points. In conclusion, the degree of income misreporting is small and the impact of misreporting is relatively minor.

Table 3

Estimated Effect of AGI Substitution on Eligibility Indices

SEI Change	Total Sample Cummulative%	Eligible Students Cummulative %	Ineligible Students Cummulative %
No SEI Change	68.3(63.8)[1/]	68.4(59.4)	68.3
± 1-200 points	89.7(88.2)	89.3(86.2)	90.2
over 200 points	100.0(100.0)	100.0(100.0)	100.0

[1/] Figures in parentheses are unadjusted rates.

Reasons for Misreporting Taxable Incomes

Nearly one-third of all income misreporting is to the applicant's disadvantage; that is, a considerable proportion of misreporting consists of overreporting which serves to decrease the applicant's eligibility. This implies that much misreporting is not intentional fraud.

Perhaps the greatest cause of misreporting is the applicant's failure to either comprehend application instructions or to pay careful attention to them. The majority of the eligible Basic Grant applicants come from low income families who may lack the experience and skills required to complete Basic Grant and other application forms correctly. This was quite evident in the Individual Validation Study of the Basic Grant Validation Project. Personal communications with low income applicants indicated that much misreporting resulted from the applicant's and/or family's naivete and carelessness.

Another reason for misreporting is that applicants may report a rounded income to the Basic Grant Program rather than the exact income reported to the IRS. Many applicants reported income to the Basic Grant program rounded to the nearest thousand or nearest five hundred dollars. For example, an income of $8,363 may be round to $8,000 or to $8,500 depending on a given applicant. This, of course, would show up as a "discrepancy" in efforts to validate financial aid information.

Marital status complexities also figures significantly in cases of income misreporting. Independent applicants and parents of dependents who reported a marital status of "divorced" or "separated" have a greater degree of income misreporting than was found in the overall study group. Those applicants in either of these marital situations filing joint returns with their estranged spouses had an accuracy rate of only 64 percent; those filing separate returns, 76 percent. Since approximately one-third of all Basic Grant applicants report a divorced/separated/widowed marital status, a significant amount of misreporting may be attributed to this group.

Assuming that a substantial portion of this apparent "misreporting" is actually accurate for purposes of determining Basic Grant eligibility[1/], it may be concluded that the overall accuracy rate in the population is even higher than the estimated 82 percent indicated in Table 1.

A Comparison of the Basic Grant Validation Study with Previous Research

In many ways the IRS Sample Study of the Basic Grant Validation Study replicates previous research in the area of financial assistance programs. Studies by Bowman[2/] and Diegnau[3/] have investigated the degree to which individuals report the same incomes on the College Scholarship Service's Parent's Confidential Statement and their tax returns. Table 4 has been developed to compare the Bowman and Diegnau studies with the IRS Sample Study in terms of the overall reporting accuracies found in the respective samples investigated.

1/ Basic Grant policy requires that the person providing the greater portion of an applicant's financial support report income in cases in which an applicant or his/her parents are divorced or separated. Persons in these circumstances may have filed joint income tax returns. This would contribute to the rate of misreporting observed in the IRS Study even though accurate information may have been provided for the purposes of determining Basic Grant eligibility.

2/ Bowman, James L., "Accuracy of Parents' Taxable Income Reports for the 1972-73 Processing Year," Educational Testing Service, August, 1974.

3/ Diegnau, Sylvia I., "Stretching Your Financial Aid Dollars: Another Look at Income Verification," The Journal of Student Financial Aid, November, 1975.

Table 4

Comparability of the Accuracy of Reporting Adjusted Gross Incomes to BEOG and CSS 6/

AGI Reported to IRS Compared to that Reported on Financial AID Applications	IRS Sample Study 1/ (BEOG) % of Study Group Total	IRS Sample Study 2/ (BEOG) % of Dependent Study Group	Bowman 3/ (CSS) % of Study Group	Diegnau 4/ (CSS) % of Study Group
Exactly Equal	57.0(50.7) 5/	63.9(57.7) 5/	26.9	58.7
Differences ± 500	84.9(82.6)	86.7(84.4)	60.4	63.1
Differences ± 1000	88.5(86.8)	89.6(87.8)	71.8	71.7
Differences over ± 1000	11.5(13.2)	10.4(12.2)	28.2	28.3

1/ Includes all applicants, eligible or ineligible

2/ Includes all dependent applicants, eligible or ineligible

3/ From Bowman, p. 15

4/ From Diegnau, p. 8

5/ Figures in parentheses are unadjusted percentages. See footnote, p. 5.

6/ It should be noted that prior to the 1973-74 processing year CSS asked parents to certify the accuracy of their statements and to agree to furnish "an official photostatic copy of their latest Federal income tax return obtained from the United States Internal Revenue Service." In 1973-74 the authorizing statement was changed to: "We agree that to verify information reported in this form the CSS or any of the named recipients may request or obtain an official photostatic copy of our latest state or U.S. income tax return."

In 1974 CSS changed its procedures for determining parental contributions to use "current year" rather than "estimated year" income. This results in more applications being filed after actual income for the calendar (tax) year preceding the academic year for which aid is requested is known and for which IRS forms have been filed. In fact, a greater proportion of CSS applicants file after January, thus permitting a greater probability of coincidence with IRS submissions.

Since verification of data became a serious concern, institutions have come to require authority to use IRS forms for comparison with application data on income. Currently, more than 50 percent of the CSS membership routinely requires submission of the IRS form for verification purposes. Further improvement in insuring accuracy of income reported on student aid applications is assisted through State scholarship programs requiring State or Federal income tax information.

Thus, the overall effect of these changes is to improve the accuracy of income reported by applicants filing CSS forms. Comparability shown in Table 4 should be considered in view of present efforts and progress made toward achieving accuracy in the last two years.

BEST COPY AVAILABLE

As indicated by Table 4, eighty eight percent (86.2%, unadjusted) of all Basic Grand applicants had discrepancies in reported income of $1000 or less whereas Bowman and Diegnau reported similar figures of 71.8 percent and 71.7 percent, respectively. Considering those applicants whose financial aid application incomes matched exactly with those reported to IRS, 57 percent (50.7, unadjusted) of all Basic Grant applicants were exactly accurate whereas Bowman and Diegnau reported similar figures of 26.9 percent and 58.7 percent, respectively.

These comparisons are particularly noteworthy in that the BEOG Study group includes independent applicants who, as was earlier pointed out, are far less accurate in reporting their incomes than one dependent applicant. The Bowman and Diegnau studies investigated dependent applicants only. Considering only dependent Basic Grant applicants, Table 4 indicates that 63.9 percent were exactly accurate and 89.6 percent were within $1000 of the income reported IRS.

It should be noted, though, that the Basic Grant application year begins in the Spring when applicants generally have access to wage and tax statements to aid the completion of the Basic Grant application. This is not true for the Parent's Confidential Statement(PCS). This form may be completed prior to the receipt of W-2 forms and can be, in effect, income estimates. Both Bowman and Diegnau found that the accuracy of reporting incomes was greater when the PCS form was completed after the submission of the federal income tax returns.

Data outlining misreporting as a function of income level are presented in Table 5.

Table 5

Comparability of Reporting Adjusted Gross Income by Basic Grant Applicants by Income Level

	AGI Reported to BEOG							
	Total	Less Than $4,000	$4,000-$6,999	$7,000-$9,999	$10,000-$12,499	$12,500-$14,999	$15,000-$17,499	$17,500+
Underreport to IRS	15.0 (13.0)[1]	29.0 (15.7)	15.5	15.8	13.6	8.5	9.0	6.7
Accurate (±$200)	78.8 (81.5)	63.0 (80.0)	74.8	77.9	81.4	87.6	86.9	89.0
Overreport to IRS	6.2 (5.4)	8.0 (4.3)	9.7	6.3	5.0	4.0	4.1	4.3
Percent of Sample	100.0	27.9	14.4	14.8	12.2	11.3	7.9	11.5

[1] Figures in parentheses represent adjusted percentages to account for low income non-match bias for eligible BEOG applicants.

These data are remarkably comparable to those of the Bowman and Diegnau studies. Overall, Basic Grant applicants show a slight tendency toward greater accuracy in income reporting (78.3% versus 76% and 75.3% in the Bowman and Diegnau studies, respectively) and a rate of overreporting that is intermediate to that found in the Bowman and Diegnau studies (6.2% versus 9% and 1.8% respectively). The least accurate income levels were in the $4,000-$10,000 range which is also consistent with the Bowman and Diegnau studies.

Several points should be made concerning major differences between the methodologies of the Basic Grant Validation Study and the Bowman and Diegnau studies:

- "Accuracy" was defined in the Basic Grant study as reporting adjusted gross income to BEOG within ± $200 of that reported to IRS. This is a far more conservative definition of accuracy than that used in the Bowman and Diegnau studies. In these two studies, "accuracy" was defined as income reported to both IRS and the College Scholarship Service falling within the same multi-thousand dollar reporting interval. In brief,

Bowman considered as "accurate" incomes that may have been discrepant by over $4,500. Diegnau considered as "accurate" incomes that may have been discrepant by $2,499.

- Data in Table 5 were derived from dependent as well as independent applicants. The Bowman and Diegnau studies only examined records of dependent students. As was indicated earlier, dependent students tended to be more accurate in reporting income than independent students in the BEOG study. Considering only dependent applicants for the BEOG study, 81.2 percent reported incomes accurately as opposed to the 76 percent and 75.3 percent figures found in the Bowman and Diegnau studies, respectively.

- Both the Bowman and Diegnau studies examined relatively more applications in the higher income ranges (over $15,000) and relatively fewer in the middle and lower income ranges (under $10,000) than was the case in the Basic Grant study. As indicated earlier, higher income applicants tend to be more accurate than middle and lower income applicants.

The significance of these three points is that the differences in 1) the "accuracy" criteria and 2) the study sample between the Basic Grant and the other studies were such that the similarity of the overall accuracy rates by income level were unexpected.

Validating Low Income Applicants - The Issue of the Non-Match Study Group

Difficulties were encountered in obtaining matched IRS and Basic Grant records for individuals earning less than $4,000 a year. Many of these individuals do not receive any taxable income and do not submit tax returns[1/]. Consequently, there was no way to document the validity of incomes reported to BEOG for these individuals. The problem was further compounded by the apparent high rate of misreporting among low income applicants for whom matched records were obtained in the IRS study. Results of the Individual Validation component of the Basic Grant Validation Study indicated that most applicants with low incomes did not misreport adjusted gross income information. This finding caused the Office of Education to hypothesize that the reason for the relatively high discrepancy rates among the matched

---

1/ This problem was not addressed in either the Bowman or Diegnau studies, yet it has serious implications for the validity of any conclusions made concerning the reporting accuracy of low income families.

IRS sample was that many discrepancies did not involve cases of "true" low income families but rather middle income applicants underreporting income information to BEOG.

In any event, the issue of validating low income applicants was not completely resolved. It became quite apparent that it would be improper to automatically assume that low incomes reported on financial aid applications are erroneous. On the other hand, validating low income applicants through procedures appropriate for higher income individuals were inadequate. Validating low income applications required careful review of several sources of information and a considerable investment in time and manpower. Future validation efforts will have to come to terms with this issue if the integrity of financial aid programs is to be maintained.

Other Types of Basic Grant Misreporting - The Individual Validation Studies

The Individual Validation Studies were designed so that far more information could be examined on Basic Grant applications than was possible in the IRS Sample Study. Although cases sampled did not reflect the general characteristics of the overall Basic Grant applicant population, some interesting insights were obtained nevertheless.

First among these observations was that very little Basic Grant misreporting appeared to be deliberate. Rather, many applicants misreported information because 1) they did not believe Basic Grant regulations applied to their specific circumstances, or 2) applicants did not understand the nature of the data they were requested to supply. For example, many discrepancies involving step-parent incomes or enrollments in postsecondary schools prior to April 1, 1973, were found to be a function of applicants' beliefs that Basic Grant regulations did not apply to their cases. In addition, errors in reporting non-taxable income and the number of family members attending postsecondary schools were largely a function of applicants' misunderstanding of the information appropriate for each of these items. Many individuals reported non-taxable income as a monthly

disbursement rather than as an annual sum. Others reported interest and dividends as non-taxable income. "Post high school," a term used on the Basic Grant application, appeared to be confusing to applicants because in many cases, individuals listed as attending postsecondary schools in a given family were grade school and high school students.

A second finding is that while low income applicants did not misreport taxable incomes to a greater or lesser extent than did individuals in other income ranges, errors in reporting non-taxable income were typically characteristic of low income applicants. Nearly 50 percent of all confirmed errors in reporting non-taxable income occured among applicants earning less than $4,000 a year. This has implications for efforts to validate financial needs information. Documentation to support levels of non-taxable income is much more difficult to acquire and review than IRS tax forms. However, effective validation efforts must address this problem.

A third finding of some importance is that because much misreporting is unintentional, most Basic Grant applicants were cooperative in correcting erroneous data items once the rationale for these changes was understood. Such cooperation is vital to the success of any continuing validation process.

Several brief tables present some of the more basic data derived from both the Individual Validation Studies. Table 6 indicates the ways in which cases were resolved in both the Pre-established Criteria and Institution Referral Studies. Approximately one third of all Pre-established Criteria cases and two-thirds of all Institution Referral cases were resolved through the receipt of acceptable SER corrections. A large percentage (30.2%) of Pre-established cases were closed because of continued non-response to validation efforts.

Table 6

Mode of Case Resolution in the Individual Validation Studies

Mode of Resolution	Pre-Established Criteria Study % of Study Group	Institution Referral Study % of Study Group
Applicant Submitted Valid SER Correction	29.4	63.5
Applicant Submitted Acceptable Supporting Documentation	26.9	9.4
Non-Response After Initial Contact	30.2	N/A
Resolution by Institution	N/A	16.4
Other	13.5	10.7
	100.0	100.0

It should be pointed out that of those cases closed due to non-response, many had known errors. Many applicants provided documentation which was inconsistent with data report on their SERs but however, the validation contractor was unsuccessful in obtaining valid SER corrections from these applicants prior to the termination of 1975-76 validation contract. To indicate more accurately the incidence of errorneous SERs in the Pre-established Criteria study groups, Table 7 is presented. This table shows the actual incidence of confirmed SER errors in the entire study sample (35.5%).

Table 7

Student Eligiblity Report Errors Uncovered in the Pre-established Criteria Study

	Total Cases %	Cases w/ Errors %	Cases w/o Errors %	Unknown %
Dependent Applicants	100.0 (N=1001)	39.0 (N=391)	28.8 (N-288)	32.2 (N=322)
Independent Applicants	100.0 (N=382)	26.2 (N=100)	22.0 (N=84)	51.8 (N=198)
TOTAL	100.00 (N=1383)	35.5 (N=491)	26.9 (N=372)	37.6 (N=520)

Finally, Table 8 provides a picture of the overall effort expended to secure case resolution in both Individual Validation Studies. This table indicates the average number of transactions (communications) either initiated or received by the validation contractor during the course of the study effort. The average of 8.1 transactions per Institution Referral case also includes communications with financial aid officials.

Table 8

Average Number of Transactions Required to Resolve Cases in the Individual Validation Studies

	Average Number of Transactions
Pre-established Criteria Study	5.7 (N=7858)
Institution Referral Study	8.1 (N=1211)

Supplemental Basic Grant Applications - The Accuracy of Income Estimates

Individuals suffering some catastrophic occurrence disrupting their normal sources of income are allowed to submit an application which reflects anticipated income over the relevant portions of the application year, rather than the amount earned during the preceding year as is the case with regular Basic Grant applications. Investigations of the accuracy of these estimates revealed that 68.5 percent of those filing supplemental applications underestimate their income, 17.8 percent overestimate, and 13.7 percent are relatively accurate. Differences in accuracy varied depending on filing status. Eligible filers underestimated at a rate of 70.3 percent whereas ineligibles underestimated at a rate of 64 percent. Eligibles overestimated 16.6 percent of the time; ineligibles, 20 percent.

Substituting the income reported to the Internal Revenue Service in the computation of the Student Eligibility Index revealed, however, that despite the high occurrence of inaccurate income estimates, the consequences of inaccuracy were moderate. Among eligible applicants, SEIs based on IRS data resulted in minor SEI changes (± 200 points) in 50 percent of the study group and no changes in another 25 percent. This information is summarized in Table 9. In other words, although 87 percent of all eligibles made inaccurate estimates, only 25 percent would have incurred significant changes if SEIs were computed on income actually earned. In terms of the total eligible Basic Grant population, Supplemental filers with significantly inaccurate estimates account for only .016 percent of all eligible applicants. It should also be noted that only 5 percent of all ineligible applicants would have been eligible for a Basic Grant if their SEIs had been based on income earned rather than income estimated.

Table 9

Estimated Effect on Supplemental Applicants' Eligibility Indices of Substituting Known Taxable Income for Estimated Income

SEI Change	% of Study Groups
No Change	25.0
Changes of ± 200 points	50.0
Changes in excess of ± 200 points	25.0

Additional findings indicated that 1) the larger the income reported to IRS the greater the inaccuracy of the estimated income reported to the Basic Grant program; 2) supplementals filed because of the death in the family were least accurate and those filed because of the inability to pursue income activities most accurate; 3) independents were slightly more accurate than dependents, and 4) the accuracy of income estimates improved substantially the later in the year the supplemental application was submitted.

Major Conclusions and Recommendations

Although results of the Basic Grant Validation Study led to the development of a number of specific recommendations, there are three broad recommendations that transcend each of the study components.

First, Basic Grant validation efforts should be continued. Sufficient misreporting was uncovered to indicate that the integrity and credibility of the Basic Grant program requires an effective monitoring system. However, because most misreporting is unintentional and applicant cooperation is readily obtained when SER corrections are necessary, the major responsiblity for application verification should be given to financial aid personnel at participating Basic Grant institutions. Most financial aid offices have access to the documentation required to verify applications and validation efforts at the institutional level would encompass far more students than can be investigated through sampling procedures.

Consideration may be given to requiring institutions to verify information if documentation is available to the school. Another approach to facilitate institution-level validation efforts would be to require students to submit federal tax returns (Form 1040 or 1040A) to their financial aid officer before institutions release Basic Grant funds for which the student may be eligible. To effectively involve institutions in Basic Grant validation efforts, though, funds should be made available to compensate institutions for the added manpower required to conduct verifications.

For institutions without access to appropriate verifying documentation and for applicants who are unresponsive to institution efforts to clarify apparent instances of misreporting, the Office of Education should continue to utilize the services of a validation contractor. Individual validation efforts through the institution referral process and pre-established criteria sampling should serve to strengthen and support the institution verification efforts.

Secondly, the Office of Education should continue to review program regulations and application procedures. Such a review should seek ways to simplify and/or clairfy the application process to avoid misreporting due to misunderstanding and confusion over Basic Grant reporting requirements. Included in this effort should be an investigation of processing system edits to determine ways in which this system may be improved to eliminate obvious misreporting before Basic Grant eligibility is actually determined.

Finally, no changes should be considered which would permit regular Basic Grant applications to be filed prior to the beginning of the calendar year. Despite a more problematic study group than used in either the Bowman or Diegnau studies, the Basic Grant Validation Study revealed an accuracy rate in reporting income data that was greater than that found among incomes reported on the Parents' Confidential Statement. A major factor underlying this finding is that Basic Grant applicants are not permitted to file for an award until wage and tax statements (W-2 forms) are available for reporting purposes. Accuracy of Basic Grant income reporting can only suffer if applicants are allowed to file prior to the availability of this information.

On the other hand, despite the large discrepancies found among those estimating incomes it is recommended that no changes be made in the basic procedures for determining Basic Grant eligibility for supplemental filers. Given the highly catastrophic circumstances which led to supplemental applications and the small percentage (.64% of the eligible Basic Grant population) of individuals submitting these applications, it would seem unreasonable to implement a system which would adjust awards after actual income data is available and potentially jeopardize student enrollment plans.

3

PROJECT METHODOLOGIES AND SELECTED FINDINGS

The purpose of this section of the Basic Grant Validation Project Summary is to present in more detail the methodologies used to conduct the three major validation studies. These are, in order of discussion, the Internal Revenue Service Sample Study, the Individual Validation Studies (Pre-established Criteria and Institution Referral Studies) and the Estimated Income Studies (CRT Look-Up Study, the Individual Follow-Up Study, and the Estimated Income IRS Sample Study).

I. INTERNAL REVENUE SERVICE SAMPLE STUDY

Study Overview

The Internal Revenue Service (IRS) Sample Study was one of three major component efforts designed to provide an estimate of the accuracy of information reported on Basic Grant applications and to develop procedures to continually monitor and control program abuse. The IRS Comparison study was designed to provide an estimate of the overall accuracy of income information reported by 1974-75 Basic Grant applicants. This component was comprised entirely of computerized statistical analyses and excluded any contact with, or identification of, individual applicants. It complements the Institution Referral and Pre-established Criteria efforts in that it provides an estimate of the scope of misreporting for all BEOG applicants on three particular income data items as opposed to providing estimates of the accuracy of applications that were selected systematically according to pre-established criteria or judgmentally by financial aid officers.

The IRS comparison study is significant because of the weight that income and household size information carry in the formula used to determine the Student Eligiblity Index (SEI). In addition to examining the accuracy of eligible applicants' income data, the IRS comparison study also allowed for an estimate of the accuracy of data reported by applicants who were determined to be ineligible.

Specifically, the IRS Sample Study was designed to answer the following questions:

- How many and what percent of the Basic Grant applications agree/disagree with the IRS-reported adjusted gross income, taxes paid, household size/exemptions, eligibility index?
- How many and what percent of the Basic Grant-reported adjusted gross income, taxes paid, household size-exemptions, eligibility index are higher/lower than the IRS reported amount?
- What is the average size of positive/negative discrepancies between the IRS and BEOG adjusted gross income, taxes paid, household size/exemptions, eligibility index?

The population of primary interest in this study was comprised of applicants who had submitted a regular 1974-75 Basic Grant application (as opposed to Supplemental applications) and had received an eligibility index of 1200 or less, indicating that they were eligible to receive a Basic Grant award. The 1974-75 Basic Grant data based contained records for 667,179 applicants who had received eligibility indices of 1200 or less.

The second population of interest consisted of 1974-75 applicants who had filed a regular application, but received an eligibility index greater than 1200, indicating that they were ineligible to receive a Basic Grant award. The Basic Grant data base included 422,809 such records. Ineligible applicants with complete records were studied primarily to assess the potential scope of misreporting if eligibility requirements are relaxed.

Study Methodology

A stratified random sample of 130,000 individuals was selected from the Basic Grant master file. The stratifying variables were income level and dependency status of the applicant. This sample was then matched with data maintained by the Internal Revenue Service. Developing the matched data base involved the efforts of five federal agencies and private companies in order to insure that the privacy and anonymity of applicants selected for this study were maintained at all times. The activities of these agencies/companies are summarized below:

1. The Office of Education served as the study coordinator and overseer. OE was involved in developing and approving the analytic design and all operational procedures, and in coordinating activities among the other agencies. The Office of Education was not involved in any data processing activities.

2. The Validation Contractor served as OE's prime contractor in designing the study. The validation contractor developed specifications for drawing the samples and preparation of the IRS and BEOG data for linkage. The validation contractor developed the program for producing the random identifiers that were substituted for the personal identifiers, and developed the specifications and programs for conducting the data linkage and analysis. No in-house computer processing was performed by the validation contractor.

3. The BEOG processing contractor is currently under contract for routine maintenance and processing of the BEOG files. The processing contractor performed computer operations to select the sample according to specifications provided by the validation contractor. The processing contractor developed two files 1) the IRS Cross Reference File which contained the personal identifiers necessary for accessing the IRS data and random identifiers necessary for achieving the linkage; and 2) the BEOG File, which contained the random identifiers and the dependent and independent variables from the BEOG records. The processing contractor forwarded the IRS Cross-Reference File to IRS and the BEOG File to an independent computer center.

4. The Internal Revenue Service was involved in reviewing and approving all procedures prior to implementation. IRS was provided with the Cross-Reference File developed by the BEOG processor. This file contained random and personal identifiers. IRS performed data processing to remove the personal identifiers and to prepare another file containing the IRS dependent and independent variables, and the random identifiers. This file was provided to the independent computer service for analysis.

5. The independent computer center served as the facility where the linkage between the BEOG and IRS data was achieved, and all analytic production was performed. According to programs and specifications provided by the validation contractor, the BEOG and IRS data were merged, and the random identifiers were stripped from the merged file.

Personnel who were responsible for computer operations were informed only that the files were confidential and had to be secured in locked steel cabinets; they were not informed that the input files contained BEOG and IRS data. Once the merge was successful, all intermediate files were destroyed, and the analysis was performed at the independent computer facility according to programs and specifications developed by the validation contractor.

Data elements which served as dependent variables were adjusted gross income, taxes paid, household size and Basic Grant eligibility indices. The first two variables are directly comparable between Basic Grant applications and IRS tax forms. Household size on the Basic Grant application was matched with total tax exemptions reported on tax forms. There are differences between these two items and to the extent possible these differences were minimized statistically. Eligibility indices derived from IRS data were also not exactly comparable to those computed from Basic Grant application data, but the differences were not so great as to invalidate comparisons made between them.

Independent variables which were a priori believed to be associated with differences between the dependent variables presented above included:

- Income level
- Dependency status
- Date of Basic Grant application
- Applicants failing income edits
- Applicants receiving assumed incomes
- Applicants who submitted a correction to income
- Number of transactions/corrections submitted
- Taxes paid

Study Findings/Conclusions

Accuracy of Adjusted Gross Income

- In general, ineligibles were more accurate then eligibles, and dependents were more accurate than independents.
- More AGI misreporting was in favor of increased eligibility than decreased eligibility.

.. Eligibles only:

- Applicants reporting farm assets, business assets, and negative adjusted gross income tended to be more accurate than applicants in general.
- Applications signed prior to April 15 were found to be more accurate than those signed after April 15.
- Accuracy tended to increase as AGI increased.
- Accuracy tended to decrease as the number of corrections increased.
- Applicants who submitted corrections to AGI in response to a rejection comment or submitted non-requested corrections tended to be considerably less accurate than all eligibles.
- Applicants who receive AGI assumptions were less accurate than all eligibles, particularly if the applicant did not change the assumed value.
- Applicants or parents who were divorced/widowed/separated did not differ greatly from all eligibles studied in reporting accuracy of adjusted gross income.
- Applicants who reported nontaxable income were less accurate than those who did not report nontaxable income.
- Applicant categories comprised largely of dependents tended to be more accurate than all eligibles.
- Applicant categories comprised largely of independents tended to be less accurate than all eligibles.

Accuracy of Reporting Taxes Paid

- In general ineligibles were more accurate than eligibles.
- Taxes paid were generally reported with fewer discrepancies and with smaller discrepancies than AGI.
- For eligibles, independents were more accurate than dependents; for ineligibles, the opposite was true.

.. Eligibles only:

- Independents reported taxes paid more accurately than dependents; however, more independents who misreported do so to increase their eligibility, whereas the majority of dependents who misreported do so to decrease eligibility.
- Accuracy decreased for independents as income increased. The most accurate reporters of taxes paid were low income applicants (who reported AGI least accurately)
- Overreporting taxes increased for all applicants as AGI increased.
- Accuracy decreased for independents as BEOG-reported taxes paid increased.
- Overreporting for all applicants increased as taxes paid increased.
- Applicants/parents who filed a declaration of estimated income to IRS reported taxes paid less accurately than all eligibles studied.
- Applicants/parents who were rejected for taxes paid reasons were less accurate than the total study group.
- Accuracy decreased as the number of corrections increased.
- Accuracy of taxes paid did not appear to be related to BEOG signature date.

Accuracy of Household Size

- In general ineligibles report household size more accurately than eligibles.
- In general independents report household size more accurately than dependents.
- Household size was reported more accurately than income.

.. Eligibles only:

- Applicants and parents reporting divorced/separated/widowed had a higher rate of misreporting than all eligibles studied.
- Dependents in middle income categories reported household size more accurately than any other dependents; accuracy of household size did not vary by income for independents.
- Accuracy decreased as size of household increased.
- Household size tended to be less accurate when it was larger than the number of exemptions reported to BEOG.

- Applicants who did not change assumed household size values were more accurate than the general population; applicants who did change assumed values were considerably less accurate.
- Accuracy of reported household size decreased as the number of corrections increased.

Substitution of IRS AGI in Computing SEI

- For both eligibles and ineligibles substitution of IRS data impacted more on independents than on dependents.
- Eligibles tended to be impacted more than ineligibles, and more eligibles than ineligibles would have had a reduction in eligibility, had IRS data been used in determining eligibility.
- Increasing the number of data items substituted for BEOG reported data increased eligibility changes for both eligibles and ineligibles.
- Substitution of taxes paid impacted greater on ineligibles than eligibles.
- Household size and income substitutions yielded the strongest effects on altering the eligibility on both eligibles and ineligibles.
- For both ineligibles and eligibles, income and household size discrepancies resulted in eligibility decreases more frequently than eligibility increases.
- For ineligibles, taxes paid discrepancies resulted in eligibility increases more often than eligibility decreases. For eligibles, taxes paid discrepancies effected eligiblity increases and decreases at about the same level.

II. INDIVIDUAL VALIDATION STUDIES

A. Institution Referral Study

Basic Grant program regulations require that institutions must report to the Office of Education any discrepancies detected on Student Eligibility Reports (SERs) which cannot be resolved by the institution's financial aid personnel. The Institution Referral Study was implemented to provide the system by which reported discrepancies could be reviewed and processed by the Office of Education. Concurrent with efforts to process reported discrepancies, the study was also designed to evaluate this review system in order to identify modifications and/or alternatives that would result in a more expeditious disposition of reported discrepancies.

The study was initiated in August, 1975 when one of the periodic Office of Education "Dear Colleague" letters was sent to participating BEOG institutions outlining the procedures by which discrepancies should be reported. Financial aid personnel were instructed to report only those cases for which they had documentation to support the likelihood of an SER discrepancy. Documentation considered to be acceptable for establishing the possibility of an SER discrepancy included:

- Federal tax returns (Form 1040, 1040A)
- State tax returns
- ETS Parent Confidential Statement
- ACT Financial Need Statement
- Other financial need statements
- Other formal documents (affidavit of non-support, Veteran's Benefit Statement, Social Security Benefit Statement, high school transcripts, etc.)

The only exception to the requirement of supporting documentation occurred in those circumstances in which applicants reported no or exceptionally low incomes on the SER.

In addition to the general requirement for supporting documentation, financial aid officers were asked to report cases only

after efforts to resolve the apparent discrepancy with the applicant had proved unsuccessful. This request was made to ensure that students were given a reasonable opportunity to explain an apparent error before the validation contractor initiated further validation procedures.

Study Methodology

When a case was received by the validation contractor, it was reviewed to determine if indeed the circumstances of the case required further validation and follow-up actions. If a decision could not be achieved because of the lack of certain information, the referring institution was contacted to obtain additional information and/or clarification. Again, every reasonable attempt was made to pursue those applications that clearly merited special attention and to ensure that no students were unnecessarily subjected to the actions that were a part of the validation process.

If the SER in question did contain clearly documented discrepancies, the validation contractor initiated procedures to have the applicant explain or correct this discrepancy. Each applicant whose SER was deemed appropriate for validation follow-up was sent a letter from the Office of Education stating in detail the nature of the reported discrepancy. The addressee was asked to review carefully his/her SER and to correct it or provide corroborating documentation in accordance with instructions provided in the letter.

At the same time this initial letter was sent to the applicant or his/her parents, a letter was also sent to the referring institution indicating that validation follow-up had been initiated relative to a particular student and that the institution should withold further BEOG disbursements to this individual until further notice from the Office of Education.

If the addressee failed to respond to the initial request for SER corrections or supporting documentation either by letter or

telephone within a specified period of time, a follow-up letter was sent via certified mail. Non-response to this second request resulted in a series of telephone follow-ups until the addressee was contacted or it proved impossible to locate the individual.

Responses to a request for SER corrections or supporting documentation were carefully reviewed. If the response was an SER correction, this review determined whether the appropriate data items had been changed and that the respondent had dated and signed the SER certification. If the response was supporting documentation, the review determined whether this documentation pertained to the items believed to be in error.

Based on this review, a decision was made as to whether the response was acceptable. If judged unacceptable, a new series of communications was initiated to obtain the required response. If judged acceptable, a letter was sent to the respondent indicating Office of Education satisfaction with the materials received. If an SER correction was involved, this letter also explained what the respondent should do upon receiving the new corrected SER. At the same time this letter was mailed, the referring institution was also instructed to resume BEOG disbursements in accordance with the valid Student Eligibilty Index (SEI).

Study Findings/Conclusions

At the conclusion of the 1975-76 Basic Grant Validation Study, institutions had referred 521 cases with alleged SER discrepancies. Of these 521 referrals, resolution has been obtained for 159. The remaining 362 are still in various stages of validation.[1/] Of the 159 resolved cases, 143 actually underwent validation procedures and 126 of these 143 (88%) cases had confirmed SER discrepancies.

Analysis of resolved referrals resulted in the following findings and observations:

1/ It should be noted that the majority of unresolved cases were referred to the validation contractor one month prior to the preparation of this report.

- Institutional response in the validation project was lower than anticipated. One hundred fifty-seven institutions responded. Of this number, only 23 (15%) had enrollments of over 5,000 students and were four year degree granting colleges or universities. Reasons suggested for the overall low response rate included statements by financial aid officers to the effect that 1) institutions did not have the time and/or the resources to do a thorough review of applications; 2) financial aid officers should not be expected to validate grant applications, and 3) the validation project presented ethical problems which at least one financial aid officer felt were objectionable. In addition, it was felt that a combination of the newness of the validation process as well as improved guidelines supplied to financial officers to resolve discrepancies at the institutional level also contributed to the lower than expected participation rate.

- Cases referred to the validation contractor were generally of five basic types - applicant enrollment in postsecondary schools prior to April, 1973 (21.7%), adjusted gross income errors (43%), errors in reported discrepancy status (6.4%) errors involving zero or extremely low incomes (7.9%) and multiple errors (10%).

- There was very little evidence of deliberate misreporting. Most confirmed discrepancies involved cases in which the applicant did not fully understand Basic Grant application regulations.

- Corrected Student Eligibility Reports (SERs) were obtained in 82 cases at the time of report preparation. The average Student Eligibility Index change for these 82 cases was 825 points higher than average initial SEIs.

- Prior enrollment errors were generally characteristic of independent student referrals. A possible explanation for this fact was that most independent students were low income individuals and therefore had a greater incentive to ignore the 1973 application restriction than dependent students who generally come from higher income strata.

- An investigation of adjusted gross income errors revealed that the highest income groups evidenced a greater error rate than the lowest income group. Of the 49 resolved cases indicating incomes over $7,000, 31 had confirmed income errors (63%). In the lowest income groups (incomes under $4,000) only 12 of 66 resolved cases had confirmed income errors (18.2%).

- Because dependent students generally came from the higher income strata and independent students from the lower strata, dependent students evidenced higher rates of income errors than dependent students.

- Low income applicants evidenced the highest rates of misreporting sources and amounts of non-taxable income. This is related to the fact that low income applicants are more likely to be receiving income of this type than are higher income applicants.

- Most referrals came from public schools. Referrals from private schools were predominantly prior enrollment and multiple discrepancy errors. Public institution referrals, on the other hand covered a much wider variety of discrepancy types, relatively speaking.

- Of the specific documents used to support allegations of Basic Grant misreporting, the most often used were the Educational Testing Services' Parent Confidential Statements and Federal income tax returns. No referrals were based upon State income tax forms or the American College Testing Program's Family Financial Need Statements. This observation applies only to those 159 cases which were successfully resolved.

- Overall, validation procedures utilized in the Institution Referral Study were effective in obtaining SER corrections and documentation as requested. Witn few exceptions applicant and financial aid officer cooperation in the validation effort was exceptional.

B. Pre-Established Criteria Study

Study Overview

The Pre-established Criteria (PEC) Study was undertaken to review and validate a randomly selected number of Basic Grant applications. The applications considered appropriate for this phase of the Validation Project were those containing data entries outside the norm for Basic Grant applications as a whole. The purposes of this study were similar to those of its companion studies, the Internal Revenue Service (IRS) Sample Study (Volume III of the Basic Grant Validation Study) and the Institution Referral Study. That is, by validating selected applications which a priori had a high likelihood of being in error, some assessment could be made of 1) the degree of actual and potential program abuse; 2) the characteristics of applicants likely to perpetrate such abuse; and 3) procedures for screening and correcting erroneous applications prior to a determination of applicant eligibility.

However, unlike the IRS study, PEC validation efforts were more narrowly focused on a specific "high risk" population and considerably more application data could be examined and reviewed (e.g., number of children in post-secondary schools, non-taxable income, veteran's educational benefits, etc.). Also, unlike the Institution Referral Study, PEC validation efforts were directed toward a randomly selected group of individuals. This reduced the possibility of bias in the types of discrepancies which were likely to be found.

The specification of the pre-established sampling criteria was accomplished through a series of meetings including the OE Basic Grant staff, the Basic Grant Validation Contractor, and the Basic Grant Processing Contractor. During these meetings all of the potential criteria were examined in relation to their impact on the eligibility index and the feasibility of implementing validation procedures.

At the conclusion of these discussions, the following basic criteria were agreed upon and were used to define the universe of applicants to be included in the PEC study:

1. Applicants reporting negative, little or no income and a relatively large household size.
2. Applicants who submitted changes to the adjusted gross income reported originally which resulted in a lower (and thus more favorable) eligibility index.
3. Applicants submitting four or more corrections where the latest eligibility index is lower than the first.
4. Applicants who report a large number of members in the household attending postsecondary institutions.
5. Applicants meeting criteria 1 through 4.

Once the selection criteria had been determined, the Basic Grant processors produced counts of eligible applicants meeting each selection criterion. Based on these counts, sample sizes were calculated to provide sample statistics for each criterion category which were subject to no more than ±5 percent error at a 95 percent level of confidence. Applicants were drawn from each category using a skip interval appropriate for the sample size required. Entry into the data files was accomplished through a random start. A total of 1,400 applications were selected for review and validation.

Study Methodology

Validation procedures were initiated on November 21, 1975. At this time, the initial requests were mailed to applicants selected from each of the pre-established criterion categories. The letter applicants received asked for four major items:

- a notarized copy of the applicant's (or applicant's parents') 1974 income tax return
- a notarized copy of the applicant's (or applicant's parents;) 1974 W-2 forms
- a statement confirming the amount of any non-taxable income received in 1974

- a statement indicating the school at which the applicant was currently enrolled

In addition, applicants who reported a large number of family members in postsecondary schools relative to the total household size were asked to list the names of such individuals and the schools they were attending.

Follow-up of those individuals who failed to respond to this initial request included a first follow-up by regular mail, a second by certified mail, and a third via telephone. Telephone follow-ups were continued until the addressee was either contacted or it was determined that it would be difficult or impossible to reach an individual given the identifying information available to the Office of Education.

It should be noted that unlike the procedures used in the Institution Referral Study, no attempt was made to discontinue BEOG disbursements to applicants included in the Pre-established Criteria Study. However, award adjustments were made if SER corrections were subsequently obtained.

When a response to a request was received, a review was made to determine whether the response was acceptable for validation purposes. If the response included supporting documentation for the Student Eligibility Report (SER) of record, this review assessed whether the documentation was a 1974 income tax return with appropriate 1974 W-2 forms, whether documentation for non-taxable income had been provided, and whether the materials had been notarized. If documentation was complete, the case was considered resolved and the addressee was sent a letter acknowledging the Office of Education's satisfaction with the materials provided and appreciation for the addressee's cooperation. If the documentation was not acceptable, the addressee was recontacted by letter or telephone, depending upon the nature of the problem, and asked to resubmit the documentation in accordance with specific instructions.

If the response was a corrected SER, the review made certain that the corrections were reasonable in light of information available to the Office of Education, and that the addressee had signed the SER certification. If the correction was considered acceptable, the SER was forwarded to the BEOG processor for re-processing. The addressee was also sent a letter informing him/her of the acceptability of corrections received and that upon receipt of the new SER, the applicant should present it immediately to his/her financial aid office. Finally, a letter was also sent to the applicant's institution to inform the financial aid officer of the changes likely in the applicant's Basic Grant status and to make any adjustments in the disbursement schedule required by the new Eligibility Index.

If the SER correction was not acceptable, the addressee was recontacted by letter or telephone and asked to resubmit the SER in accordance with specific Office of Education instructions.

Study Findings/Conclusions

Validation procedures were initiated for 1383 applications, and written responses of one kind or another were obtained from 1,092 individuals. Definitive resolution was established for 853 cases. Of these 853 cases, 406 submitted corrected SERs, 372 provided acceptable documentation supporting data on their original SERs, and 75 were resolved as a result of policy decisions on the part of the Office of Education. An examination of responses revealed the following observations:

- The lowest rates of confirmed misreporting occurred in those criterion groups selected on the basis of reported low adjusted gross incomes. These groups also exhibited the highest rates of non-respone.
- The most prevalent SER error involved adjusted gross incomes. Twenty-seven percent of all confirmed errors were of this type. "Other income" errors, however, were also numerous, accounting for 22.8 percent of all errors.

- While adjusted gross income errors were evenly distributed across sampling groups, "other income" errors accounted for 50 percent of all errors in the low income groups.
- Errors in reporting "other income" and the number of family members attending postsecondary schools were in large part a result of applicants' misunderstanding of the information appropriate for each of these items. Many individuals reported "other income" as a monthly disbursement rather than as an annual sum. Others reported interest and dividends as "other income" when these amounts were already reported as a part of their adjusted gross incomes. "Post-high school" (a term used on the Basic Grant application) appeared to be confusing to applicants because in several cases individuals cited as attending post-high school institutions included grade school and high school students.
- Data revealed that dependent students had a higher rate of confirmed misreporting than independent students. However, independent students had a much higher rate of nonresponse than dependent students. There were few differences in the distribution of discrepancy types associated with dependency status.
- Of the 360 SER corrections processed prior to the conclusion of the Basic Grant validation contract, 160 resulted in increased eligibility indices (lowered Basic Grant disbursements). One hundred thirty-five (135) of these resulted in index changes of over 100 points. Overall, the average index change for the 360 corrections reviewed was 119 points. Of the 94 corrections from applicants in the low income criterion groups, though, 74 resulted in no eligibility index changes (81.3%).
- For those individuals submitting SER corrections, the average change in reported non-taxable income was $1320. Changes in adjusted gross income averaged $1767. For those cases in which the corrected amount exceeded amounts initially reported, the average changes were $2207 and $3228, respectively.
- For those applicants overreporting the number of family members attending postsecondary schools, the average number of individuals overreported was approximately four.

- Public schools exhibited higher rates of "other income" and household size/postsecondary school offset errors; private schools exhibited higher rates of adjusted income and tax errors.
- Schools with small enrollment evidenced a lower incidence of misreporting than larger schools, but the distribution of specific discrepancy types was generally uniform across categories of school enrollment sizes.
- In general, all the pre-established sampling criteria were effective in identifying erroneous Basic Grant applications with the exception of the negative income criterion.
- The overwhelming majority of applicants contacted during this component of the validation study were cooperative in meeting Office of Education requests. However, communications with these individuals revealed that many did not fully comprehend the reasons why they were asked to submit SER corrections because they believed that the "congratulations" comment on their SERs informing them of their Basic Grant eligibility indicated Office of Education satisfaction with their information as initially reported.

III. ESTIMATED INCOME STUDIES

A. The CRT Look-Up Study

Study Overview

The CRT Look-up Study compared the applications of eligible BEOG applicants who submitted a 1974-75 Supplemental application with the BEOG application these individuals submitted in 1975-76. Because a catestrophic event such as death of a significant contributor to the applicant's family income is not likely to occur two years in a row (although unemployment might) it was hypothesized that 1974-75 estimators would not file a supplemental form in 1975-76. Since the adjusted gross income reported is based on previous year's income, the 1975-76 applications would utilize the 1974 income, or that income which was estimated for the individual's 1974-75 application. Thus, a ready assessment of the accuracy of the estimation process could be made.

The comparison between the estimated and actual report of 1974 income was conducted to answer the following basic questions:

- What is the overall accuracy of income estimates made by those individuals filing supplemental Basic Grant applications?
- Do individuals who file a supplemental form later in the Grant application year have a more accurate estimate of their income than those who file earlier?
- How will the dates of filing the 1975-76 applications be distributed for applicants who had filed a supplemental form in the previous year?
- How is the income level of the applicant related to the accuracy of estimation?

Comparison of 1974 supplemental applications with regular 1975-76 applications was accomplished through the use of a cathode ray tube (CRT) computer terminal; hence the study's name.

Study Methodology

The CRT Look-Up Study randomly sampled 1547 individuals who filed supplemental applications for the 1974-75 academic year. A search was then made of the 1975-76 file of Basic Grant applicants to match application records of those individuals filing in both application years.

Data were extracted manually for each individual sampled for whom a record was located on the 1975-76 file. The data obtained were limited to the following items:

- Adjusted gross income
- Signature date
- Whether the applicant filed a supplemental form in 1975-76

Final analysis was conducted utilizing all 1975-76 applicants who had previously estimated their 1974 income but did not do so on the 1975-76 report and who did not change dependency status. Thus, final comparisons were made on a total of 962 observations.

Study Findings

- 43.8 percent of the estimated income study group estimated their 1974 income to be less than $4,000. Less than 1 percent of the CRT sample had estimated incomes over $15,000.
- For the CRT sample there was a 24.7 percent rate of accuracy in estimation for the 962 individuals whose records were analyzed.
  - .. 35.1 percent had discrepancies between estimated and reported income which were larger than ±$2,000.
  - .. Those who estimated that their income would be less than it actually was accounted for 54.3 percent of the sample.
  - .. Overestimates were made by 20.9 percent of the sample.
- It was found that the latest signature data of individuals' BEOG records was related to the rate of accuracy of the estimations. Persons with signature dates later in the application year were able to provide better estimates of the year's income. The percentage of accurate estimators

increased for each succeeding date category, with those filing after December 31 having a 58.4 percent rate of accuracy. In addition, the later the date of application signature, the fewer the number of underestimators in the "over $2,000" discrepancy range. There was, however, an increase in the number of underestimators in the "$1,000 - $2,000 discrepancy range.

- Approximately 64.5 percent of individuals whose latest signature date fell in the period between May 1 and July 31, and who filed a supplemental application, underestimated their 1974 income.

  .. 36.9 percent of the individuals had estimated that their 1974 income would be more than $2,000 less than it actually was.

  .. Only 23 percent of persons whose latest signature date for the supplemental application was after December 31, underestimated. The percentage of underestimates larger than $2,000 was 7.1 percent.

- For those individuals who estimated their income in 1974-75 and filed a regular application in 1975-76, almost half (48 percent) filed prior to March 15 in the second application year. The remainder were evenly divided between signature dates in the period March 15 to April 30 and the period after April 30. For the regular applications filed in 1975-76 there was no apparent relationship between rates of discrepancy/accuracy and the 1975-76 date of signatures.

- Both under- and overestimating occurred more frequently as the estimated adjusted gross income became over $4,000. For larger incomes, the larger differences (over $10,000) occurred more frequently, generally as overestimates. As estimated AGI increased, these differences appeared to reflect a smaller proportion of the individual's income.

- In the over $12,500 income category, the number of overestimators increased , and the number of underestimators declined somewhat relative to the rates of discrepancy found for other income categories.

B. Individual Case Follow-Up Study

Study Overview

The Estimated Income Individual Case Follow-up Study was designed to determine the accuracy of income estimates provided by BEOG applicants. In this component of the Estimated Income investigation, information verifying estimated income was obtained from a sample of eligible applicants. Verification was based upon a notarized copy of the individual's or his/her family's 1974 income tax return (IRS Form 1040). While the Estimated Income Individual Case Follow-up procedures parallel those of the Pre-established Criteria study, no attempt was made to adjust the students' award.

The Individual Case Follow-up Component complemented the CRT Look-up by examining estimating accuracy from a different perspective. Rather than using a 1975-76 BEOG application to investigate the accuracy of estimates made for the 1974-75 application year, this study utilized 1974 tax forms. In addition, the Individual Case Follow-up methodology allows a more complete picture of the estimating population in two basic respects. First, the reasons for filing the supplemental applications were analyzed in this study. Secondly, the case follow-up procedure allows direct contact with members of the sample, increasing substantially the background information on this population.

Specifically, questions addressed by Individual Case Study data were:

1) What is the overall accuracy of estimation?
2) Is accuracy of estimation related in any way to the reasons for which the supplemental was filed?
3) How is accuracy of estimation related to the applicant's adjusted gross income as reported to Basic Grants?

4) Is the discrepancy between 1974-75 estimated income and 1974 tax related to a discrepancy between 1975-76 reported income and 1974 tax?

5) Are the IRS forms submitted to the validation contractor true copies of those submitted to IRS for tax purposes?

Study Methodology

The Individual Case Follow-Up Study involved contacting a sample of 408 individuals submitting supplemental applications for the 1974-75 application year. The sample was stratified by estimated income level and reasons for which the supplemental application was filed. Individuals were asked to submit documentation of their actual 1974 income as reported to IRS. This information was compared to the adjusted gross income entry on the Student's SER in an effort to determine the degree of accuracy generally obtained in income estimates.

An initial contact letter was mailed out to students on December 17, 1975. If no response was received after one month, a follow-up letter was sent. After another month a second follow-up letter was sent to those individuals who had not responded either by telephone or letter. No further follow-up efforts were implemented to contact non-respondents after second follow-up procedures had been completed.

As responses were received, the documentation was checked for acceptability. Criteria for the acceptability of verification information were:

1) Notarized IRS-1040 and W-2 forms

2) Letter indicating AGI if income was too low or otherwise did not require a 1040 to be sent to IRS

3) Notarized W-2 forms if no IRS-1040 available

Respondents were not initially granted the options included in criteria 2 and 3 unless they informed the validation contractor that it was not possible to obtain a copy of their 1974 income tax return.

After the acceptability of the information was determined, the AGI from the documentation was compared with the BEOG reported data. If discrepancies existed, the amount of the difference was recorded. Next, the Basic Grant application master file was checked using microfiche copies of the records. If the 1975-76 file indicated that the applicant had refiled for a 1975-76 Grant, and had again filed a supplemental SER, the case was closed and the individual was sent a letter indicating this action was taken. If the applicant did not submit another supplemental form, the 1975-76 SER-reported AGI was compared with the 1974-75 BEOG application and IRS data. Where there was no discrepancy with the IRS data, the case was closed and the individual was notified. Where there was a discrepancy, the difference in AGI was recorded, as was the date of filing, the case was then closed, and the individual was notified.

Study Findings

Of the 408 individuals sampled responses were obtained from 336 cases. These responses generated the following observations:

- Overall, the study of frequency of discrepancies indicated that:
  - .. 61.6 percent underestimated their income
  - .. 25.6 percent were found in the over $3000 discrepancy category
  - .. 17 percent had insignificant discrepancies
  - .. 21.4 percent overestimated their 1974 income.
- The comparison of accuracy rates for the four categories of supplemental reason showed that:
  - .. Those citing death were the most accurate (24.5%) with separation/divorce next, but both of these categories accounted for a very small portion of the sample.

.. Those citing the inability to pursue income activities were slightly more accurate than those citing loss of employment, but the difference is less than 3 percentage points (16.8%) and 14%, respectively).

.. The frequency of individuals in the highest positive discrepancy category (those underestimating 1974 incomes by $3000 dollars or more,) was consistent across supplemental reason categories.

- A comparison between the applicants' estimates and the true income as reported to IRS indicated the following:

.. 7.1 percent had no discrepancies at all

.. Of the accurate estimators (±$1) most were in the under $4,000 income category. Approximately 19 percent of this category had no discrepancies.

.. 91.9 percent of those with IRS-reported incomes over $10,000 underestimated their income. These individuals accounted for 40.5 percent of the total sample.

.. Overestimating occurred for 24.1 percent of the sample, the under $4,000 category having the highest rate (50.6%). In the $4,000-$9,999 category, 27.2 percent overestimated.

C. IRS Sample Study

Study Overview

The third, and largest, component of the Estimated Income Study is the IRS Sample Study. Closely patterned after the IRS Sample Study for the total Basic Grant applicant population, this part of the Estimated Income Study examined the trends of estimating accuracy exhibited in the population and related these trends to applicant characteristics. In addition, the data provided a point of comparison for data obtained in the CRT Look-Up and Individual Case Follow-Up Studies to determine the accuracy of their respective findings.

Specifically, the Estimated Income IRS Sample Study addressed the following questions and issues:

1) What is the overall accuracy of estimation?
2) How is accuracy of estimation associated with applicant/program characteristics?
   - 2.1) Which categories of applicants reflect higher or lower discrepancy rates in adjusted gross income (as shown by discrepancy ranges)?
   - 2.2) Which categories of applicants reflect higher or lower discrepancy rates in taxes paid?
   - 2.3) Which categories of applicants reflect higher or lower discrepancy rates in household size/exemptions?
3) Does the frequency of corrections made by applicants to their BEOG applications relate in any way to misreporting?
   - 3.1) Does the frequency of corrections relate to the size of AGI discrepancies?
   - 3.2) Do applicants report accurate AGI's, then resubmit in order to increase the size of their awards?
4) Do applicants supply true copies of tax forms when participating in the validation effort?
5) What are the effects of misreporting by the estimated income population on BEOG eligibility and the size of awards?

The population of primary interest in this study was comprised of applicants who had submitted a supplemental 1974-75 Basic Grant application and had received an eligibility index of 1200 or less, indicating that they were eligible to receive a Basic Grant award. The 1974-75 Basic Grant data base contained records for 10,825 such applicants. The second population of interest to this study consisted of 1974-75 applicants who had filed a supplemental application, but received an eligibility index greater than 1200, indicating that they were ineligible to receive a Basic Grant. The Basic Grant data base included 6,535 such records.

Within the two populations of interest (eligibles and ineligibles), applicants were grouped according to three stratification variables hypothesized to be associated with discrepancies: (1) financial dependency status, (2) income level, and (3) reason for filing supplemental.

Study Methodology

A random sample of 7,300 individuals who filed supplemental applications in 1974-75 was drawn from the Basic Grant master files. The records of these 7,300 applicants were matched by social security numbers with tax information on file with the Internal Revenue Service. Effective security precautions were instituted to insure the privacy and anonymity of Basic Grant and IRS records. At no time did a file exist in which an individual could be identified from information available to the various agencies and companies responsible for the data base development.

Once the Basic Grant/IRS data base was created, a series of tables was developed to examine the correspondence between three variables which were generally comparable between IRS and Basic Grant records:

- Adjusted gross income
- Federal income taxes paid
- Household size

In addition, eligibility indices derived from IRS data were compared to Basic Grant indices.

These four variables, then, represented the dependent variables for analysis. Independent variables were selected to represent key applicant characteristics. Those variables were:

- Eligibility
- Dependency Status
- Adjusted Gross Income Level
- Reason for filing supplemental application
- Filing Status - applicants/parents reporting divorced/separated/widowed to BEOG and filing either a joint or separate IRS return
- Date of signature of BEOG applications
- Applicants who had changed adjusted gross income on the Basic Grant application from correct to incorrect
- Applicants making changes in their Basic Grant application

Analysis of data was done through the development of cross-tabulations and simple descriptive statistics.

Study Findings

Comparative data for the 1974-75 estimated income population with 1974 income tax returns were available for 2,840 eligible applicants and 1,750 ineligible applicants. The non-match rate (no corresponding Basic Grant and IRS records for a given social security number) was .37 percent. Results of data investigations revealed the following observations:

- AGI Analysis
  - .. 35.3 percent underestimated by more than $2,000
  - .. 7.1 percent overestimated by more than $2,000

- .. Independents were slightly more accurate than dependents among eligibles and substantially more so among ineligibles
- .. Income was found to be unrelated to accuracy for dependents. For ineligible independents, the highest rate of accuracy was found in the $7,000-$9,999 category
- .. The accuracy of estimates increased as the date of filing the supplemental application was located later in the year. The date was the only variable significantly related to discrepancy rates.
- .. Accuracy appeared to be unrelated to supplemental reason, although those reporting the inability to pursue income activities were slightly more accurate than other categories, except in the case of ineligibles citing death. Among these individuals, accounting for 25.9 percent of all ineligibles, 92 percent were inaccurate, and most of these underestimated their incomes.

- Taxes paid analysis
  - .. A lower frequency of discrepancies was found for taxes paid than for AGI
  - .. Independents are more accurate than dependents, perhaps as a result of lower incomes, and, lower taxes
- Household Size/Exemption Analysis
  - .. Ineligibles were more accurate than eligibles, but the overall rates of accuracy were generally over 90 percent for all groups
- Number of Corrections
  - .. Because individuals filing supplemental applications will, in many cases, file them as a correction to a regular application, it did not appear that many estimated income applicants used the BEOG correction process as a method of increasing their eligibility. Very few (16%) had more than two application records, indicating that they had made more than one correction. Of those who filed one correction, less than 50 percent underestimated their income.

- Eligibility Index Analysis

  This analysis involved a comparison of the eligibility index the applicant received based on his/her estimate of income reported to BEOG with an eligibility index calculated by substituting corresponding data on the IRS data base for the following data elements:

  .. Adjusted Gross Income

  .. Taxes Paid

  .. Household Size

  This substitution was performed only for the purposes of analysis, no change was actually made to the applicants' BEOG records.

  - Specific findings include:

    .. Only 3 percent of eligibles had Basic Grants SEIs which were higher than those derived from IRS data

    .. Only 3 percent of eligibles had insignificant discrepancies between Basic Grant and IRS-based SEIs.

    .. Only 43.9 percent of the eligibles had Basic Grant SEIs which were lower than those derived from IRS data

    .. 54.1 percent of ineligibles had higher Basic Grant SEIs (compared to derived IRS AGIs)

    .. 32.1 percent of ineligibles had insignificant discrepancies

    .. 13.9 percent had lower Basic Grant SEIs (compared to derived IRS AGIs)

An analysis was performed for each population to determine how many people, on the basis of substituting the IRS adjusted gross income figure for the BEOG estimate, would have changed ineligibility status with regard to qualifying for an award.

- 24.9 percent of those eligible for Grants based on income estimates provided to BEOG would have been ineligible if the SEI derived on IRS data had been utilized
  - .. of these, 88 percent were dependents; 12 percent were independents
  - .. the largest frequency of persons in this category occurred among dependents in the $7,000-$9,999 income range as reported to BEOG
  - .. only 5.4 percent of those ineligible to receive a grant based on their estimated income, would have been eligible to receive an award if their SEI was equal to that derived from data they provided to the IRS.